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ABSTRACT

The Experimental Schools Program was begun in 1970 under legislative authority to test the hypothesis that comprehensive changes in existing educational systems will improve the quality of education. This report to the Congress by the Comptroller General's Office determined that the Experimental Schools Program will provide information to educators and researchers on the implementation of comprehensive educational change. It will not be able, however, to provide complete data on (1) the ability of school districts to plan for and to implement comprehensive educational changes and (2) the impact of these changes on students, teachers, administrators, and the community. In addition, the program does not insure that projects could provide the type of cost data necessary to determine compliance with special program financial regulations. The Comptroller General's Office recommended that: (A) project plans approved for funding include (1) documentation of the need for the educational changes sought through the research, (2) specific instructions on how to conduct the research, and (3) specific, measurable objectives in terms of output or impact; (B) evaluations be planned and implemented to provide necessary impact and cost information over the entire life of the project; and (C) procedures for requiring program offices to verify that grantee accounting systems are adequate provide the type of data necessary to insure compliance with financial regulations.

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REPORT TO THE CONGRESS

BY THE COMPTROLLER GENERAL
OF THE UNITED STATES

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Experimental Schools Program: Opportunities To Improve The Management Of An Educational Research Program

National Institute of Education

Department of Health, Education, and Welfare

The Experimental Schools program will provide information to educators and researchers on the implementation of comprehensive educational changes.

It will not be able, however, to provide complete data on (1) the ability of school districts to plan for and to implement comprehensive educational changes and (2) the impact of these changes on students, teachers, administrators, and the community.

In addition, the program did not insure that projects could provide the type of cost data necessary to determine compliance with special program financial regulations.

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

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COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

B-164031(1)

To the President of the Senate and the
Speaker of the House of Representatives

This report discusses problems of the Experimental Schools program and lessons learned from it which should be applied to the management of future educational research efforts. The program was established under authority of the Cooperative Research Act of 1954, as amended (20 U.S.C. 331a), to test the hypothesis that comprehensive changes to existing educational systems will improve the quality of education. The program is administered by the National Institute of Education, Department of Health, Education, and Welfare.

We made our review pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), and the Accounting and Auditing Act of 1950 (31 U.S.C. 67).

We are sending copies of this report to the Director, Office of Management and Budget, and to the Secretary of Health, Education, and Welfare.

A handwritten signature in dark ink, reading "Thomas B. Staats".

Comptroller General
of the United States

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ABBREVIATIONS

GAO	General Accounting Office
HEW	Department of Health Education, and Welfare
NIE	National Institute of Education

COMPTROLLER GENERAL'S
REPORT TO THE CONGRESS

EXPERIMENTAL SCHOOLS PROGRAM:
OPPORTUNITIES TO IMPROVE THE
MANAGEMENT OF AN EDUCATIONAL
RESEARCH PROGRAM
National Institute of Education
Department of Health, Education,
and Welfare

D I G E S T

According to the National Institute of Education, the Experimental Schools program was established to test the hypothesis that comprehensive changes to existing educational systems will improve the quality of education. It was designed to increase knowledge about the process of education and to implement the changes resulting from research, demonstration, and experimentation carried out in actual school settings.

The program, established within the Office of Education in 1970, was transferred to the Institute in August 1972, when the Institute was established as the Federal Government's focal point for educational research. Both the Institute and the Office of Education are part of the Education Division within the Department of Health, Education, and Welfare. (See p. 1.)

GAO found some improvements were needed in planning and in carrying out education research programs.

Accordingly, GAO recommends that the Secretary of Health, Education, and Welfare direct the Director of the Institute, wherever applicable, to:

- Insure that project plans approved for funding include (1) documentation of the need for the educational changes sought through the research, (2) specific instructions for doing the research, and (3) specific, measurable objectives in terms of output or impact. (See p. 26.)

--Insure that evaluation will provide necessary impact and cost information over the life of the project. (See p. 26.)

--Institute procedures for requiring program offices to verify that recipients' accounting systems will produce the type of data necessary to insure compliance with special program financial regulations. (See p. 31.)

--Institute procedures to insure that recipients give this data to program offices. (See p. 31.)

The Department of Health, Education, and Welfare agreed generally with GAO's recommendations. The Department said, however, that GAO's report did not include enough background on large-scale social science research and development methodology or on the difficulties with such research and development. The Department also expressed concern about the number of projects GAO reviewed and the timing of its review.

GAO does not wish to minimize the difficulties involved in large-scale social science research and development activities of this type.

GAO's report assesses the Institute's management of the research and development performed and does not deal with program management in relation to the state of the art of educational research and development.

Rather, GAO's purpose is to stimulate action by the Institute so that management problems discussed in this report will not recur in the future.

GAO's recommendations were prompted by the following problems at the projects visited:

--Projects generally had not prepared plans which could be used to effectively carry out and evaluate comprehensive educational changes. The plans were written in conceptual, rather than operational, terms. (See p. 10.)

- Evaluations did not produce adequate information on projects' impact on students, teachers, administrators, and communities. (See p. 13.)
- None of the projects had accumulated enough baseline data on student achievement and attitudinal levels either before the comprehensive changes were made or early in the projects' operation. As a result, evaluators will not be able to fully determine the impact of the comprehensive educational changes over the 5-year project life. (See p. 21.)
- At four of the five projects, program evaluators had not made any cost analyses at the time of GAO's visit. According to the Institute, understanding (1) the cost of an innovation and (2) the shifts in the traditional spending patterns to accommodate the innovation are important to:
 - The educational practitioner trying to decide on the innovation's utility, adaption, and implementation.
 - The educational researcher trying to understand the process and the problems of phasing out Federal funding. (See p. 22.)
- The Experimental Schools program did not set out specific, measurable objectives for evaluating its effectiveness. Also individual projects were not required to establish similar objectives, which would have allowed for objectively measuring the effectiveness of a program involving comprehensive changes. (See p. 23.)
- The Experimental Schools program did not insure that participating school districts could provide the data necessary to determine compliance with special program financial regulations. At three of the five projects, GAO found that the records did not include the type of data needed. (See ch. 3.)

CHAPTER 1

INTRODUCTION

According to the National Institute of Education (NIE), the Experimental Schools program is an educational research effort designed to test the hypothesis that comprehensive changes to existing educational systems will improve the quality of education. The program is also designed to increase and to improve basic knowledge about the process of education and to implement the results of research, demonstration, and experimentation in actual school settings.

The Office of Education, Department of Health, Education, and Welfare (HEW) began the program in 1970 under authority of the Cooperative Research Act of 1954, as amended (20 U.S.C. 331a). This act authorizes the Office of Education to make grants to (1) universities and colleges, (2) other public or private agencies, institutions, and organizations, and (3) individuals for research, surveys, and demonstrations in the field of education and for the dissemination of information derived from educational research.

NIE assumed responsibility for the Experimental Schools program in August 1972 when NIE was established within HEW by the Education Amendments of 1972 (20 U.S.C. 1221e (SUPP. ii. 1972)). Both NIE and the Office of Education are part of the Education Division within HEW.

NIE was established by the Congress to:

"* * * conduct educational research; collect and disseminate the findings of educational research; train individuals in educational research; assist and foster such research, collection, dissemination, or training through grants, or technical assistance to, or jointly financed cooperative arrangements with, public or private organizations, institutions, agencies, or individuals."

The Experimental Schools program has funded 18 projects, 15 of which are operated as a part of local school systems. Three projects are administered by local Urban Leagues through a grant to the National Urban League. Projects operated by local Urban Leagues--referred to as street academies--are aimed at low-income and/or minority students who have dropped out of school or who are achieving below their potential in the regular school system.

NIE has stated that no other projects will be funded and the program will be terminated when Federal support of established projects ends. Each project is planned to

operate 5 years. The last projects to be selected were funded in fiscal year 1973 and will be completed in fiscal year 1976.

ADMINISTRATION AND OPERATION OF THE PROGRAM

Three separate competitive announcements were made to select projects for the Experimental Schools program. Although the theme of each competition was different, the selection process used was the same.

The first competitive announcement, made in December 1970, contained basic program policies and general guidelines for projects. Project proposals were to be designed to test and to demonstrate the relative effectiveness of combinations of various educational research products, practices, and ideas showing promise for improving American education.

Each project was to be organized around a central educational concept that reflected change from the educational setting that existed at the local level to what the school system and the local community believed education ought to be.

The announcement set out the criteria to be used in selecting sites for projects to begin operations in school year 1971-72. These criteria included:

- Demonstrated experience with educational innovations on a large scale.
- Staff capacity and competency to manage comprehensive experimentation.
- Development of a plan for broad participation in the design, implementation, and governance of a project.
- Identification of the target population.
- Extent to which the design fulfilled the objectives of the Experimental Schools program, including a:
 1. Primary target population of low-income children.
 2. Target population of about 2000-5000 students.
 3. Longitudinal kindergarten-to-12th-grade design.

4. Comprehensive approach to the learning environment, including, but not limited to, curriculum development, community participation, staff development, administration, and organization.

--Attention to evaluation and documentation.

--Commitment of resources for the duration of the project.

The second competition was announced in March 1971. The announcement solicited proposals for projects which would represent significant alternatives to (1) the learning experiences being offered to students, (2) the way those experiences were structured and organized, and (3) the relationship between the educational program and the community.

According to this announcement, proposals were to answer the following questions:

- How well does the proposed project fit the description of an Experimental Schools project as set out by the announcement?
- How strong is the evidence that the components of the project are compatible and mutually reinforcing?
- How strong is the evidence that the educational problem(s) to be addressed is/are pertinent to the target population and how well does the project address the problem(s) and the needs of the target population?
- How strong is the evidence that the applicant is capable of carrying out the project as stated?
- To what extent does the comprehensive design of the proposed project make it a significant alternative to existing school programs?

The announcement further stated that all project activities were to be implemented during each project's first year.

The third competition was announced in March 1972. Through it, the program made available to a limited number of rural school systems the opportunity to test new ideas for educational improvement in and for small rural schools. School systems located in rural settings and with up to 2,500 students qualified.

After each competition independent selection committees made up of non-Government educational experts reviewed the proposals and selected 8 to 10 school systems to receive planning grants. School systems selected as project sites during the first two competitions received grants of between \$10,000 and \$45,000 to cover their planning efforts, which were to be completed within 2 to 3 months. The 10 rural school systems selected during the third competition received 1-year planning grants of from \$46,500 to \$121,400. The amount of the planning grants was based on the capability of local school districts to plan for comprehensive change.

Applicants receiving grants were to use the grants to prepare complete, detailed plans. The selection committees reviewed these plans and selected projects to receive operational funding.

Under the Office of Education, the Experimental Schools program was originally planned to provide operational support for two 30-month periods during the 5-year term of each project. However, under NIE, funding support is now provided on a yearly basis. Although projects are reviewed at the end of each funding period, full 5-year funding for each project is virtually assured. Funding support for each project is limited to the incremental costs associated with implementing it, such as the costs for developing the staff necessary for operating the program, acquiring materials, doing minor remodeling, and evaluating and documenting the project.

To receive program funds, applicants were required to indicate a willingness to continue projects with their own resources after Federal support ended. In each successive year of the program, the local school district is to provide an increasing percentage of total project costs; thus, it gradually assumes the total cost. This requirement is intended to help insure that (1) changes made are not stopped after 5 years because of costs and (2) the ideas tested have the potential of being economically feasible for other school systems to implement.

FUNDING

The Experimental Schools program has awarded contracts and grants totaling about \$48 million from its start in December 1970 through June 30, 1975. NIE estimates that an additional \$7 million will be required to completely fund all program projects through fiscal year 1978.

We reviewed five projects funded during the first two competitions. NIE estimated that these projects and related

evaluation contractors will receive \$36 million of the \$55 million to be spent by the Experimental Schools program.

PROJECT CHARACTERISTICS

Projects were originally designed to institute comprehensive changes in only a portion of the schools within participating school districts; however, they were to include all grade levels--kindergarten through the 12th grade. Projects are comprised of several components--for example, the elementary school, staff development, curriculum development, and evaluation and pupil appraisal components. Each of the five projects we reviewed is discussed below.

Project A

This project was implemented during 1971, the first year of the program, and Federal funding support will end in June 1976. Total Federal funding over the project's 5-year operational life will be about \$6.5 million.

Project A identified three issues as its central theme:

- Prevalence of institutional racism in the educational system.
- Lack of cultural pluralism in the schools.
- Need to institute educational reform.

The project initially implemented 21 alternative approaches to education in classes ranging from kindergarten through 12th grade. During 1974 several less promising alternatives were either terminated or merged so that the project's full resources could be devoted to those alternatives showing the greatest potential for success. As a result, the project is now testing 17 alternatives.

These alternatives are used to educate about 5,000 of the school district's 15,000 students, with experiments in such areas as:

- Free school governance (curriculum developed by students and teachers).
- The open classroom (flexible curriculum, schedule, and age grouping).
- Bilingual teaching.
- Multicultural classroom focus.

- Combining, paid employment of students with schooling.
- Remedial teaching.
- Team teaching.

Project B

This project was also implemented during the first year of the program, with Federal funding to end in May 1976. Federal funds allocated to the project over its 5-year life will total about \$4.8 million.

The project's main purpose is to provide an environment that will optimize learning for each student. Because the school system had a high student-turnover rate, the project has emphasized diagnosing each student's educational needs and devising an academic prescription to meet them. To make schooling more responsive, such innovations as variations in the length of the school day, an extended school year which allows students some flexibility in attendance patterns, job experience as a high school graduation requirement, and development of coeducational sports were tested.

The project was initially implemented at 6 of the 13 schools in the school district and was expanded to include all 13 schools for the 1973-74 school year. The school district serves about 8,500 students.

Project C

This project was also implemented during the first year of the program, with Federal support to end in June 1976. Federal funds provided over the 5-year life of the project will total about \$6.6 million. This project's main purpose is to offer choices within the public school setting which recognize the individual differences among all involved in the educational process.

The project has implemented four alternatives on the elementary school level:

1. Contemporary school--incorporates new techniques but does not deviate greatly from a traditional teacher-directed, structured curriculum and school organization by grade level.
2. Continuous progress primary and continuous progress intermediate--based on the premise that each child learns best by working at his or her own pace.

Instruction is based on a carefully sequenced curriculum in basic skills. Students progress through the curriculum without regard to grade level.

3. Open school--based on the assumption that children plan their own activities in a rich and carefully organized environment. They not only learn basic skills but also learn to take more initiative in their own education and to enjoy learning more than their counterparts in traditional schools.
4. Free school--offers a curriculum developed by teachers and students. This is the project's most experimental instructional pattern and is limited to a small number of students and teachers. Student selection of curriculum and development of a positive self-concept are emphasized. This option is available to students at all grade levels.

At the secondary school level, this project offers a wide range of curriculum alternatives. Students, with their parents' consent, are allowed to design their own educational programs, but the programs must meet criteria established for graduation.

About 2,200 of the school district's 67,000 students participated in this project.

Project D

This project was implemented during the second year of the program, with Federal support to end in June 1977. Federal funds provided over the 5-year life of the project will total an estimated \$4.4 million. The student enrollment of this school district is predominantly Mexican American.

The project's main purpose is to maximize the intellectual and social potential of students by changing the educational program to make it compatible with their experiences, cultural heritage, and personal characteristics. To accomplish this the project developed a program which:

- Reflects the students' cultural, language, and economic characteristics and is compatible with their learning style.
- Enables students to progress according to their ability.

- Improves student achievement in basic skills.
- Is process-oriented and geared to individual expression, appreciation, and achievement.
- Promotes social and interpersonal growth.
- Actively involves students, parents, and the community in its development and implementation.

According to an NIE official, the project has shifted its emphasis from a comprehensive approach to education to a bilingual, multicultural education. The project now provides initial instruction in the students' dominant language.

About 5,000 of the school district's 23,000 students participate.

Project E

This project was also implemented during the second year of the program, with Federal support to end in June 1977. Federal funds provided over the 5-year life of the project will total an estimated \$6.1 million. About 4,500 of the school district's 57,000 students participate in the project.

The main purpose of this project is to meet the educational needs of participating children by individualizing the educational process. The project is attempting to change a traditional school operation to one which emphasizes the practical use of basic skills, occupational preparation, attitudinal education focusing on the expressive arts, value formation, and creativity.

This project has begun implementing a plan which will allow other schools in the school district to become familiar with and then adopt both its process of change and some of its products.

SCOPE OF REVIEW

Our review was conducted at HEW and NIE headquarters in Washington, D.C. We visited projects and their onsite evaluators in California, Minnesota, South Carolina, Texas, and Washington. We interviewed HEW and NIE officials and reviewed policies, regulations, procedures, and practices for administering the Experimental Schools program.

At projects, we interviewed officials and examined proposals, plans, correspondence, records, and reports. We

also interviewed officials of contractors hired to evaluate the projects and examined their contract files, plans, records, and reports. We reviewed consultants' reports prepared on both the projects and the contractors.

CHAPTER 2

OPPORTUNITIES TO IMPROVE PROGRAM MANAGEMENT

The Experimental Schools program will provide information to educators and researchers on how to plan for and to implement comprehensive educational changes and the effect of such changes on students, teachers, administrators, and the community. The information will be limited, however, because the program was not adequately planned and implemented. For example:

- Project plans which could not be used to effectively implement and evaluate comprehensive educational changes.
- Project evaluations were not adequately planned or implemented in a timely manner.
- Neither adequate baseline data nor effective comparison groups were established.
- Only limited cost data was accumulated at some projects. This data is important to other school systems considering similar projects and to researchers studying the cost of implementing comprehensive changes.
- Neither the program nor individual projects established clear, measurable objectives in terms of output or impact.

To avoid these problems in future educational research and development programs, NIE should assure that the research questions to be answered are clearly identified and that evaluation is properly planned and implemented.

INADEQUATE PROJECT PLANS

The five projects we visited generally had not prepared plans which could be used to effectively implement and evaluate comprehensive educational changes. The plans were vague and were written in conceptual rather than operational terms.

Program instructions provided to school districts which received planning grants required that plans (1) define the problems to be solved, (2) state the goals and objectives of the proposed research project, (3) describe the methods to be used to achieve the stated goals and objectives, and (4) specify a method of documenting and evaluating the project's success. However, the project plans accepted by the program did not fulfill these requirements.

Inadequate documentation
of educational problems

The Experimental Schools program was initiated on the basis that varying and identifiable problems exist within current educational systems. Projects selected for participation were to try to correct the problems identified within their respective educational systems.

HEW rules and regulations for the Experimental Schools program required that project applications set out project goals, including (1) the kinds and purposes of learning experiences to be provided and (2) the educational problems to be addressed--that is, specific problems of students in the target population.

Projects, however, were not required to assess educational needs to document the specific problems to be solved. Project officials and officials of contractors hired to evaluate the projects told us that the problems set out in project plans were generally based on educational needs as perceived by school district officials, parents, teachers, or project officials. Little or no data was collected to document these problems.

For example, the plan for project A identified three problems in the school district:

- The prevalence of institutional racism in the educational system.
- The lack of cultural pluralism.
- The need to ~~implement~~ educational reform.

According to ~~the plan~~, these problems resulted in unequal educational ~~opportunities~~. The plan did not define these problems in terms of ~~what~~ students were experiencing them or their severity. ~~Further~~, terms and concepts such as "institutional racism" and "cultural pluralism" were not defined to allow ~~development~~ of consistent and measurable methods for ~~correcting~~ the problems.

Officials at ~~this~~ project told us that needs were not assessed and the ~~problems~~ cited were not documented. They said they were not ~~required~~ to assess needs and the needs identified in their ~~plan~~ were the needs of the students as perceived by school ~~district~~ officials.

The educational ~~problem~~ cited by project C was that schools were not meeting students' individual needs. To

correct this, the project established a system of alternatives to the traditional educational structure. However, the student needs which allegedly were not being met were not clearly defined. According to project officials, the selection of alternative schools as the project strategy was based on community sentiments and parents' perceptions of students' educational needs. The officials said students' needs were not assessed in formulating alternatives.

In project B, the plan was not based on the problems of students, teachers, or others in the school district; rather, it was based on problems identified during a survey made by a State agency of a neighboring school district. The project director told us he selected from the survey data those needs he believed applied to his school district. The statement of perceived needs was then presented to a group of parents, teachers, and students in the school district for their input and concurrence.

Implementation problems

Four of the five projects had problems implementing comprehensive educational changes. Officials at some projects blamed this on vague plans. For example, because the program approved an inadequate project plan, project D had great difficulty implementing the desired changes during its first 2 years.

At this project:

- The components had been implemented in a piecemeal and fragmented manner.
- Components had been designed for and directed to only a limited number of participating students.
- Many project activities had been designed by individual project components rather than by a coordinated effort of all components.

Project B experienced problems in implementing changes because, according to one project official, its approved plan was not specific. We found it was more conceptual than operational and could not readily be used as a basis for implementing the project within participating schools.

An official at this project told us that implementation was left to the principals and teachers of the six participating schools. The principals told us that, because the plan was vague, implementation decisions had to be made with little guidance.

The project lacked consistency since each participating school developed its own implementation methods with little consideration of what other schools were doing. Program officials became aware of this problem and toward the end of the project's first year informed project officials that:

"Even with the components implemented in the project, the project as a whole lacks unity, consistency and articulation. Each school appears to be responsible for (and allowed to pursue) its singular course without coordination among and between schools, teaching and administrative staffs. Unless there is some intervention in terms of planning and directing the project which supercedes the building level, there is grave danger of continued fragmentation of the project."

Subsequently, the school district established a committee of school principals to solve this problem.

INADEQUATE PLANNING AND IMPLEMENTATION OF EVALUATIONS

Experimental Schools program project evaluations are important to educators, educational researchers, and others in helping them obtain objective information on the projects. Although the program realized this importance, the various levels of evaluation originally scheduled were not planned and implemented in a manner which could provide adequate information on the impact of the projects on students, teachers, administrators, and communities.

Three separate levels of evaluation were planned by the Office of Education. Each project is required to (1) have its own evaluation component, which can help modify and improve the project on a continuing basis, and (2) assess its achievement of goals and objectives. This evaluation, known as level I, is funded as an integral part of the project. Each project is required to develop an evaluation plan acceptable to the program.

The second level of project evaluation, known as level II, is performed by independent contractors selected by the Experimental Schools program. These evaluation contractors are physically located at each project site. They report directly to the program officials and are responsible for:

--Measuring students' progress in meeting project goals.

- Identifying and documenting successful and unsuccessful comprehensive educational practices, paying attention to the replicability of such practices.
- Describing and analyzing the forces which influence the project.
- Systematically documenting project activities.
- Identifying successful evaluation and documentation concepts, methodologies, and instruments.

A primary objective of level II evaluation is to provide (1) an after-the-fact explanation of what occurred and why and (2) value judgments of what occurred. NIE plans to disseminate the evaluation results to practicing educators, particularly those in other schools serving similar areas; educational researchers, especially those interested in strategies pertaining to comprehensive educational changes; and policymakers at Federal, State, and local levels concerned with improving education. Level II evaluation plans must also be approved by the program.

The Office of Education also anticipated funding an evaluation of all aspects of the program; however, this evaluation has not been implemented as initially envisioned. Known as level III, it will be funded directly by the program. The level III evaluation was initially expected to include a determination of the replicability of activities at each project. In addition it was to assess each level II evaluation and the overall success of the Experimental Schools program itself.

In a request for proposals for level III evaluation issued in June 1975, NIE revised the objectives for this aspect of the program. According to the request, level III is to involve cross-site analyses of selected educational issues. These issues are to be grouped into two categories:

- Issues involving school programs which have common themes, such as options/alternatives or individual instruction.
- Issues relating to implementation of programs, such as the role of the Federal Government, involvement of teachers and other staff, and use of level I evaluation data in planning.

Level III evaluation is made up of two phases. The first phase consists of planning activities to identify specific issues and identification of the availability of

data for analyzing these issues. The second phase will consist of analyzing those issues. As of September 1975 the first phase was underway and NIE planned to issue a request for proposals for the second phase by December 1975.

Problems with level I evaluation

Level I evaluators have had limited success in improving projects and assessing their results. Level I evaluators at three projects we visited did not clearly understand their purpose and operated for long periods of time without approved evaluation plans or with approved but inadequate plans.

For example, at project D no level I evaluation had been implemented during the project's first year. The director of the level I evaluation staff was not hired until the beginning of the project's second year. The level II evaluator at project D commented on this situation in a March 1974 report to NIE:

"Although the project has been in operation since mid-summer of 1972, Level I remained completely unstaffed until September 1973. It appears that the absence of a Level I function during the first year of [the Project] was related to an apparent conflict between [the School District] and [the Experimental Schools program] over programmatic aspects such as the Level I evaluation's autonomy, and policy differences concerning both salary and criteria for the recruitment of a Level I Director. The failure to hire a Level I Director or otherwise initiate the Level I function appears to have been a significant factor in the failure to implement an effective * * * program for over a year of the project's existence. To date, the Level I Director remains the only staff person in the [Level I] component."

Experimental Schools program officials told us that the 1-year delay in implementing the level I evaluation occurred because:

- The project's director did not want to hire a level I director who would earn a salary higher than his own.
- The project's director wanted to completely control all level I efforts.
- A misunderstanding existed between program and project officials as to the qualifications for the level I director.

Generally the project did not give project staff needed guidance for preparing evaluation plans. At project E the level I evaluation operation for about 2 years before guidance was received from the Experimental Schools program on how to develop an evaluation plan. When project E's plan was submitted for approval, program officials considered it unacceptable because it did not include the specific evaluation questions being addressed, specific program areas to be examined, or the rationale for such examinations. The project's level I evaluation plan was resubmitted and finally approved about 3 years after the project was funded.

The level I evaluation plan for project A, though approved by program officials, was vague and generally did not consider the project's goals and objectives. It consisted of three elements:

- Observations by level I staff.
- Interviews of samples of students, parents, teachers, and administrators.
- Standardized tests of basic skills accomplishment given to students.

The evaluation plan stressed the importance of observation but made little reference to how such observation would lead to analysis of project effectiveness. In addition, the plan did not specify how the information gathered through observations, interviews, and tests would be used or what kinds of reports would be prepared for project managers.

According to project A officials, after 3 years of operation, level I evaluation had little success in providing information on project effectiveness or in helping to develop effective methods for achieving the project's goals and objectives. One official told us that level I:

- Had neither presented any useful products nor been instrumental in any project decisions or changes.
- Was inconsistent and ineffective and lacked the direction which could have been provided by an adequate plan.

Problems with level II evaluations

Each level II evaluation contractor had difficulty developing acceptable evaluation plans. As a result, the level II evaluations will not provide information

on the impact of implementing comprehensive educational changes from the inception of the project through its 5-year life. Level II contracts at projects A and E have been terminated because of the contractors' inability to prepare evaluation plans acceptable to the program after about half of the projects' operating lives had expired. It took the three other level II evaluators between 12 and 22 months after the award of their contracts to develop acceptable evaluation plans. In our opinion, the program's failure to identify acceptability criteria for evaluation plans was a primary cause of problems in developing these plans.

The Office of Education originally estimated that developing an acceptable evaluation design would take from 3 to 5 months after contract award. In its initial announcement of a competition for the Experimental Schools program, the Office stated:

"A second level of evaluation will be designed and implemented by the Office of Education in coordination and conjunction with each experimental school project in order to assess the strengths and weaknesses of the project's comprehensiveness. In addition a single evaluative design will be developed by the Office of Education in order to insure that common instruments will be used to assess replication, transportability, and comparable data among the experimental school sites."

The Experimental Schools program, however, required each level II evaluator to develop its own evaluation design. Level II evaluators at projects funded during the program's first year were to:

--Identify and explain the measurable operational goals and objectives in (but not limited to) the areas of:

1. Student achievement and attitudes.
2. Staff development and performance.
3. Community acceptance and involvement.
4. Overall project development

--Prepare a plan to measure progress toward and accomplishment of these operational goals and objectives.

- Prepare a plan for systematically identifying and observing relevant forces which might influence the overall project.
- Establish the requirements for an information, or data, system to meet the needs of levels I and II.
- Formulate a report format setting standards for the content and frequency of reporting and for documentation, and determine the relationships among the various activities requiring documentation.
- Identify and analyze costs incurred in implementing (1) the project as a whole and (2) individual project components.

The requests for proposals for level II evaluation of the two projects funded during the second year of the program contained similar provisions.

Each of the two level II evaluators whose contracts were terminated submitted four evaluation plans or revisions for approval by Experimental Schools program officials. None were approved.

The contract for project A's level II evaluation was awarded on June 30, 1971. It was for about \$750,000 and was to conclude on December 31, 1973. At that time the evaluator was to be considered for refunding for the second 30-month period of the project.

In October 1971 the contract was transferred to another firm because of logistics problems experienced by the original contractor. The onsite evaluation team, however, remained intact.

In January 1973 a team of NIE consultants reviewed this evaluator's work and reported to NIE that virtually no research products had been produced. These consultants reviewed the level II evaluator's work as part of an assessment of all programs transferred to NIE from other Government agencies. They reported that the onsite team had not been able to develop an operational plan that was acceptable to program officials. In January 1973 all members of the onsite level II evaluation team either resigned or were fired by the evaluator. NIE subsequently terminated the contract for level II evaluation at project A.

In April 1973 NIE issued a request for proposals for level II evaluation at project A and the terminated contractor was again selected as the level II evaluator.

According to a program official, this contractor was selected because its proposal was ranked highest of all those received and also had the lowest proposed budget. The contract was awarded for \$846,413 for the period June 30, 1973, to September 30, 1976. The level II evaluator developed an evaluation design which:

- Stated project goals in measurable terms.
- Identified tests which would be used to measure the project's effectiveness.
- Established specific milestones for delivering reports to NIE.
- Identified necessary baseline data and methods for generating it.
- Allowed tracking of individual students.
- Established procedures for comparing the project's effectiveness with that of the entire school district.

The level II evaluator told us, however, that the original onsite staff had not developed any data which could be used in the current evaluation of the project. As a result, the project A evaluation will last only 3 years instead of the 5 originally planned.

The level II evaluation contract at project E was also terminated. The contractor cited the lack of measurable project objectives as being the primary reason for its inability to develop a satisfactory evaluation plan. NIE terminated the level II contract in September 1974, over 2 years after the initial award.

In a September 1974 letter to NIE, we questioned the continuance of project E without a level II evaluation because, in our opinion, a project should not be funded by the Experimental Schools program without adequate evaluation.

In March 1975, however, NIE issued a request for proposals for level II evaluation at project E. NIE stated that:

"The request for proposals is consistent with an NIE review of the project which concluded that an impact assessment based on the presumption of comprehensive change was unrealistic and would be replaced by a documentation and analysis of

the new instructional model at the project and the factors favoring and inhibiting its implementation."

The request for proposals stated that, although the project had no level II evaluation from August 1974 to June 1975, data for this period would be collected by the project. Further, data collected by the former level II evaluator was to be available to the new contractor.

In our opinion, because of the problems experienced at all levels of evaluation, NIE has lost the opportunity to evaluate whether comprehensive educational changes can greatly and permanently improve education at project E.

Level II evaluators at the other three projects we visited were not able to develop acceptable evaluation plans for periods ranging from 12 to 22 months after contract award. According to two of these evaluators, a primary reason for their inability to develop such plans was a lack of guidelines from Experimental Schools program officials.

For example, at project D the contract for level II evaluation was awarded in June 1972. The evaluation plan was not approved until 12 months later. Officials of the level II evaluator told us they had only the request for proposals and inconclusive discussions with program officials upon which to base the evaluation plan. They said a continuing problem in developing data for the Experimental Schools program has been a lack of specifications as to the subjects and the depth of evaluations.

In a March 1973 report to NIE, this level II evaluator stated that a major problem had been time pressures generated by data collection and revisions of the evaluation plan. The evaluator stated it was difficult to develop and to implement a plan at the same time.

Level III evaluation

The Office of Education originally anticipated that the level III evaluation would include an evaluation of (1) all projects and level II evaluations and (2) the Experimental Schools program as a whole. However, it has not been implemented as anticipated. In April 1974 NIE requested proposals for the level III evaluation. In June 1974, however, it decided not to award the contract at that time because:

--Both the projects and the level II evaluators had been reluctant to provide data to the level III evaluator.

--Program officials did not have adequate knowledge about the extent and character of data at each project.

--It was unsure of the cost of analyzing and processing the data for cross-site comparison.

As discussed previously, NIE has revised the objectives for level III evaluation.

ADEQUATE BASELINE DATA OR EFFECTIVE
COMPARISON GROUPS NOT DEVELOPED

None of the projects we visited accumulated adequate baseline data on student achievement and attitudinal levels either before the comprehensive changes were instituted or early in the operation of the projects. As a result evaluators will not be able to fully determine the impact of the comprehensive educational changes implemented over the entire 5-year project life.

Although achievement tests were given to project B students, the level II evaluator told us that the data accumulated was narrow in scope and not necessarily representative of the entire school system.

At project C, the school district gave basic skills tests to all students and attitudinal tests to secondary school students before the project was implemented. However, project officials viewed these tests as inadequate for determining project impact because they did not address the specific attitudinal factors with which the project was concerned. Level II officials stated this test data tended to have a variety of problems which detracted from its validity.

Also, groups of nonproject students which could be effectively compared with groups of project students were generally not established. However, level II evaluators at two projects did establish comparison groups. At project D, the evaluator accumulated achievement data for both groups. At project A, data on these groups was not accumulated until the start of the project's third year. As a result, an effective assessment of the impact of comprehensive changes over a 5-year period will not be possible. Data was not gathered on a timely basis at this project because of problems with the original level II contact which was terminated.

NIE officials told us:

- Researchers encounter problems in establishing comparison groups in a real-life setting such as the Experimental Schools program.
- One difficulty is experimentally selecting and controlling both participating and nonparticipating students since it is almost impossible to prevent a new practice or technique from being used in nonparticipating schools.
- When comparison groups cannot be effectively implemented, complete baseline data on project participants should be accumulated to permit some measure of the program's impact.

NEED FOR COST ANALYSIS

According to NIE, cost data is an important factor in implementing such an educational innovation as the Experimental Schools program. Guidelines provided to the level II evaluators require that a cost analysis be performed and that the level II evaluation plan include procedures for such analysis in the areas of

- component parts of projects,
- incremental versus operational costs, and
- phaseout of Federal funding.

At four of the five projects, however, no cost analysis was being performed by level II evaluators at the time of our visit. According to NIE, understanding (1) the cost of an innovation and (2) shifts in the traditional spending patterns to accommodate the innovation are important to:

- The educational practitioner trying to decide on utility, adaption, and implementation.
- The educational researcher trying to understand the process and problems of phasing out Federal funding.

The level II evaluation plan was to include procedures for identifying the costs of implementing the project as a whole and of the individual project components. The analysis of incremental costs was to include the project's use of Experimental Schools program funds and an estimate of probable costs of implementing project components in other

school systems. These costs were to be expressed in terms of the need for additional staff having particular abilities, release time, and training rather than in terms of dollars because of the nationwide differences in personnel salaries. In addition, the level II evaluators were to assess and document the progress of school systems in reducing project operating costs so the comprehensive changes could continue after Federal funding was discontinued.

Only the level II evaluator for project D had performed any type of cost analysis. This analysis was aimed at demonstrating

- how incremental funds provided by the Experimental Schools program were used by the project,
- how the declining real-dollar budget of the school district was related to expenditure decisions, and
- how the project handled the phaseout of Federal funds.

The level II evaluator told us, however, that use of the cost analysis will be limited in measuring the impact of expenditures on students.

At two projects, level II evaluators told us they planned to initiate some form of cost analysis at a later date. The reasons for their failure to make cost analyses varied. At project A, the evaluator told us the school system refused to allow it access to the necessary financial records. After notifying NIE of this problem, the evaluator was told that NIE would generate the necessary cost data. The school system, however, also refused NIE access to its financial records, even though such access was provided for in the project's grant agreement. At project C the level II evaluator did not perform a cost analysis because this was done by the level I evaluator.

NEED TO ESTABLISH SPECIFIC OBJECTIVES

The Experimental Schools program did not set out specific, measurable objectives for evaluating its effectiveness. Also, individual projects were not required to establish similar objectives, which would have allowed for an objective measurement of the effectiveness of a program involving comprehensive changes.

Program objectives not specific

HEW's operational planning system requires agency program managers to develop clear, measurable objectives in terms of output or impact and to set milestones to measure effectiveness. The system's handbook says that impact objectives stated in terms of how resources and output will affect a problem are preferred to output objectives stated in terms of the activities or products expected from a certain level of resources. The Experimental Schools program has not established such specific objectives.

As stated in the planning system document for fiscal year 1971--the program's first year--the program's objective was to select from four to six projects and to fund them at a total cost of about \$15 million. At least one project was to be in an urban location. Another objective was to provide technical assistance to each project for finalizing plans and developing specific program evaluation criteria.

In fiscal year 1972 the program's objective was to monitor the development of three fiscal year 1971 operational sites, to initiate operations at three to five new sites, and to implement an evaluation and documentation plan.

Since the program was transferred to NIE, no new operational planning system objectives have been set out for it. According to an NIE official, initial efforts were aimed at establishing agencywide objectives and a framework for an NIE management system rather than at establishing objectives for individual programs.

Project goals and objectives not specific

Projects generally did not state their goals and objectives in specific measurable terms; rather, they stated them in vague, conceptual terms which made it difficult for evaluators to assess projects' effectiveness. Generally the five projects did not specify (1) when their objectives would be met, (2) interim milestones which could be used to monitor progress, or (3) the devices to be used to measure how well they met their objectives.

For example, project B selected as its main goal providing each student an optimum environment for learning. One objective established by the project to reach this goal was to decrease by 75 percent the number of students behind in grade level. The plan for the first 30 months of the project, however, did not state the academic subjects to be monitored or when the objective would be met. Also,

it did not state in measurable milestones or the terms to be used to measure if the objective was being achieved.

Other objectives set by this project were

- placing high priority on individualized and independent study programs and
- getting students to approach nonmaterialistic values realistically.

The project did not define either "high priority" or "nonmaterialistic" in measurable terms. The academic subjects which were individualized and the nonmaterialistic values to be approached were not identified. Further, the project did not specify when the objectives would be met or what test would be used to measure achievement.

As shown in the examples below, project C's goals were not stated in measurable terms:

- "Public Schools must be even more responsive to the individual served and must do more to stimulate individual growth and fulfillment."
- "Choice making by students, teachers, and parents will become the basic way of school life for all members of [the Project] program within the public school sector * * *. For students a major goal of the program is to encourage their personal growth and development of positive self-concept by allowing them more self-determination and by giving them skills and guidance they need to handle the increased responsibility."
- "While a major emphasis of the project is on the affective domain it is also obvious that program participants are expected to be at least as successful as other students in the school system in the area of cognitive development."

Because of the way in which the objectives are stated, evaluators will not be able to measure the project's effectiveness.

Project E's objectives were also stated in general terms and could not be measured. Following are examples:

- "To provide experiences for students and teachers designed to promote positive attitudes towards self, learning, and positive relationships with others."

--"to provide the means for each student who has mastered the basic skills to design his own educational program according to his needs and value structure."

CONCLUSIONS

The objective of the Experimental Schools program is to test the hypothesis that comprehensive educational changes will result in improvements in the way students are educated. The program will provide information on the process of change within each school district, including how changes occur and what factors impede or facilitate change.

However, the program's ability to provide information on the impact of comprehensive educational changes on students, teachers, the school system, and the community to educators, educational researchers, and other interested parties will be limited because (1) inadequate project plans were approved by the program, (2) level I and II evaluations were inadequately planned and implemented, (3) important cost analyses had not been performed, and (4) neither the program nor individual projects developed specific objectives in terms of output or impact.

Although the Experimental Schools program is scheduled to be completed in fiscal year 1978, important lessons can be learned from the problems it has encountered in planning, implementation, and evaluation. These lessons can be applied to other programs, especially those in educational research and development.

RECOMMENDATIONS TO THE SECRETARY OF HEW

We recommend that the Secretary require the Director of NIE to take the necessary steps in future educational research and development programs, wherever applicable, to insure that:

- Project plans approved for funding include (1) documentation of the need for the educational changes sought through the research, (2) specific instructions on how to conduct the research, and (3) specific, measurable objectives in terms of output or impact.
- Evaluations are planned and implemented so that they provide necessary impact and cost information over the entire life of the project.

AGENCY COMMENTS AND OUR EVALUATION

In a letter dated February 23, 1976, (see app. I), HEW commented on matters discussed in this report. Although HEW generally concurred with our recommendations, it expressed several concerns.

HEW agreed that the Director of NIE should, wherever applicable, assure that project plans approved for funding include those items cited in our recommendations. HEW believes, however, that current NIE regulations and directives which require rigorous review of project applications implement our recommendations.

We agree that these regulations and directives can, in the future, help prevent the types of management problems identified. However, the Experimental Schools program was not subjected to the rigorous review called for by the regulations and directives; otherwise, many of the problems cited in this report could have been identified and corrected.

In an April 1975 report to the Acting Director of NIE, an internal committee established to review the Experimental Schools program stated that NIE had failed to rigorously review the program before that time. The review committee also said the level of expenditure, evaluation methodology, and other program characteristics were all products of NIE management and policy decisions.

HEW also commented that our report did not contain sufficient background on large-scale social science research and development methodology between 1970 and 1975 or the difficulties associated with such research and development. We do not believe that such a discussion is warranted. Our report assesses the management of the research and development performed. We do not believe it is appropriate to deal with program management in relation to the state of the art of educational research and development.

HEW also questioned the number of projects we reviewed and the timing of our review. We reviewed the first five projects funded after they had been in existence for 2 to 3 years. While agreeing with our assessment of problems found at these five sites, HEW believes that, because they were the first projects funded, they suffered most from state-of-the-art problems. Furthermore HEW stated that a review in the second and third years of 5-year projects misses out on what can yet be learned from these projects.

We disagree. The five projects reviewed will receive an estimated \$36 million, or about 65 percent, of the \$55 million to be spent by the Experimental Schools program.

They have been in existence for the longest period of time and, in our opinion, offered the greatest opportunity to assess program management. While we agree with HEW that much can be learned from the program, we believe that the program's ability to provide information on the impact of comprehensive educational changes will be limited.

CHAPTER 3

COMPLIANCE WITH FEDERAL FINANCIAL

REQUIREMENTS NOT ASSURED

Special financial requirements for the Experimental Schools program are stated as follows in 45 C.F.R. 151.56:

"Federal financial assistance * * * may not exceed the difference between (1) the total cost of the project and (2) the number of students in the project multiplied by the average per pupil expenditure (as determined by the Commissioner) for the area to be served with respect to such period."

The Experimental Schools program did not assure that participating school districts could provide the financial data necessary to determine compliance with these regulations. At three of the five projects, we found that the records did not provide this type of data.

The announcement of a competition for Experimental Schools grants dated March 31, 1971, stated that Federal support would be limited to incremental costs of project implementation, such as costs for developing staff necessary to operate the program, acquiring materials, doing minor remodeling, and evaluating and documenting the project. Federal funds were not to be used to support basic per-pupil expenditures in project schools or to support major construction.

The regulations were further clarified in a memorandum of understanding to one of the projects which stated that:

"The Experimental Schools grant is for incremental costs only. It is understood that [the Project] will continue to provide services, materials and other support to the pupils in the Experimental Schools program at the same rate and per pupil cost as currently exist or may exist in the future due to changes in local and state funding patterns."

This memorandum of understanding was included as a provision of the Experimental Schools program grant to the project.

According to HEW officials, the following information would be required to assure compliance with this regulation:

--Definition of the area to be served by projects. Because (1) projects did not initially serve all schools in the school district and (2) the participating schools serve only specific neighborhoods, the area to be served would be the area served by the participating schools--not the entire school district.

--Identification of average per-pupil expenditures at participating and nonparticipating schools for the periods (a) immediately preceding receipt and expenditure of program funds and (b) during which Federal reimbursements are to be computed.

--Determination of total project costs at each participating school from State, local, and Federal sources.

None of the three school districts where we assessed compliance were able to provide complete cost data for individual schools.

At project D the school district apparently reduced the level of support it provided to participating students. We compared payroll expenditures for a 1-month period at both participating and nonparticipating schools with comparable enrollments. We found that total payroll expenditures at both types of schools were about equal. Since program funds were provided for participating students, it appeared that the school district provided less non-Federal funds for them.

A school district official told us that:

--Experimental Schools program funding requirements are contrary to the school district's philosophy of equal educational opportunity for all students.

--If the school district complied with Federal financial requirements, students participating in the project would have an advantage over nonparticipating students. The school district, therefore, distributes to the nonparticipating schools on a per-pupil basis more nonprogram funds than it does to participating schools.

--The school district attempts to equalize total per-pupil expenditures for both participating and nonparticipating schools.

NIE officials agreed that school districts generally do not maintain accounting systems which show the average per-pupil expenditure by school. They told us that average per-pupil expenditures are not used in determining program compliance with Federal financial regulations. They also told us that NIE has a system for determining the allowability of program expenditures, which includes (1) requiring projects to submit quarterly expenditure reports by approved budget categories and (2) financial audits at the end of each grant period. NIE, however, has generally relied on the good faith of school districts to provide the same level of non-Federal financial support to both participating and nonparticipating students.

CONCLUSIONS

Neither the Office of Education nor NIE insured that projects used accounting systems which provided financial data showing whether school districts were providing less per-pupil support to students participating in the program than to other school district students.

RECOMMENDATIONS TO THE SECRETARY OF HEW

The Secretary should require the Director, NIE, to institute:

- Procedures for requiring program offices to verify that recipients' accounting systems are adequate to provide the type of data necessary to assure compliance with special program financial regulations.
- Procedures to assure that recipients provide this data to program offices.

AGENCY COMMENTS AND OUR EVALUATION

HEW agreed with our recommendations and stated:

- It is important to distinguish between (1) standard accounting systems necessary to support allowability of costs and (2) unique systems that might be necessary to meet special project conditions.
- The problems cited in our report arose from an attempt to require school systems to produce financial data which traditional accounting procedures could not produce--namely, data on dollars per student.

--It now realizes that th's requirement was not particularly realistic, especially without technical assistance from the Federal Government. In the future, it will try to insure that any special accounting requirements levied upon award recipients will be accompanied by a review of the accounting systems necessary to support such special requirements.

We recognize that the financial requirement placed on projects was a special requirement of the program. We agree with HEW that this requirement was not realistic because the projects could not provide the necessary data. We believe that HEW's intention to assure that future award recipients will be able to comply with special accounting requirements should, if properly implemented, prevent this problem from reoccurring in educational research and development programs.

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DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF THE SECRETARY

WASHINGTON, D.C. 20201

Feb. 23 1976

Mr. Gregory J. Ahart
Director, Manpower and
Welfare Division
United States General
Accounting Office
Washington, D.C. 20548

Dear Mr. Ahart:

The Secretary asked that I respond to your request for our comments on your draft report entitled, "Experimental Schools Program: Opportunities to Improve the Management of an Educational Research Program". The enclosed comments represent the tentative position of the Department and are subject to reevaluation when the final version of this report is received.

We appreciate the opportunity to comment on this draft report before its publication.

Sincerely yours,

John D. Young

John D. Young
Assistant Secretary, Comptroller

Enclosure

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Comments of the Department of Health, Education, and Welfare on the Comptroller General's Report to the Congress entitled "Experimental Schools Program: Opportunities to Improve the Management of an Educational Research Program", November 25, 1975, B-164031 (1)

GAO Recommendation

We recommend that the Secretary of Health, Education, and Welfare require the Director, NIE, to take the necessary steps in future educational research and development programs where applicable to insure that:

- Project plans approved for funding include (1) documentation of the need for the educational changes sought through the research, (2) specific instructions on how to conduct the research, and (3) specific, measurable objectives in terms of output or impact.
- Evaluations are planned and implemented so that they provide necessary impact and cost information over the entire life of the project.

Department Comments

We concur with the GAO recommendations that the Director should, "wherever applicable", assure that project plans approved for funding include the documentation and information referenced in the recommendation. By "wherever applicable", we understand that the GAO recognizes that certain research and development projects such as field initiated research grants may not be specifically aimed at educational change or susceptible to federal "instructions on how to conduct the research". We believe that the Institute's regulations and directives already require the kind of rigorous review to assure the documentation "wherever applicable" that GAO is recommending. (These NIE regulations and directives were not applicable to awards on which the GAO report is based since the initial awards predated the creation of the Institute).

GAO Recommendation

We recommend that the Secretary of Health, Education, and Welfare require the Director, NIE, to take the necessary steps to assure that:

- Procedures for requiring program offices to verify that grantee accounting systems are adequate to provide the type of data necessary to ensure compliance with financial regulations.

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- Procedures to assure that recipients provide this data to program offices.

Department Comments

While we agree with the recommendation that such procedures are appropriate, (we understand that "program officer" includes the contracting officer or a member of his staff) it is important to distinguish between standard accounting systems necessary to support allowability of costs, and unique systems that might be necessary to meet special project conditions. The problems appropriately cited in the GAO report arose from a special attempt to require school systems to produce financial data which traditional accounting procedures did not provide -- to track dollars by student. With hindsight, we realize that this requirement was not particularly realistic, especially without technical assistance from the federal government. In the future we will endeavor to insure that any special accounting requirements levied upon awards will be accompanied by federal review of the accounting systems necessary to support such special requirements.

General Department Comments

In addition to responding to the specific recommendations in the GAO report, we believe that the final report should take into consideration various historical factors, the state of research and development when the Experimental Schools Program was developed, and changes that have been made in the program within the last two years.

Our first concern is the absence in your report of any background review of large-scale social science R&D methodology, and its development over the period 1970 - 1975. The inclusion of such a discussion would cast in a more realistic light the Institute's efforts to conduct the Experimental Schools Program in accordance with the developing standards of the discipline, and the Federal capacity for managing large-scale social science R&D. The management shortcomings you report would then appear measured realistically against the difficulty of the enterprise.

The difficulty of the enterprise can be attributed to three factors:

- (1) The assumption in 1970 that the capacity existed at the local level for planning and implementing social science R&D.
- (2) A shortage of adequately trained, experienced, field based evaluators.

And most importantly,

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- (3) The attempt in the Experimental Schools Program design to collapse three separate stages of social-science research methodology into a single five-year cycle:
 - (i) Designing an intervention treatment in accordance with our best knowledge of how to achieve a carefully stated and measurable objective.
 - (ii) Implementing the treatment to assure the school system's capacity for consistently delivering the specified intervention treatment.
 - (iii) Testing the impact of a successfully implemented treatment on a carefully selected student population against the specified objective(s).

These three technical stages are separately arduous, and to attempt to perform them simultaneously in the same school site appears, from the perspective of our current understanding of these matters, inconceivable.

Our second concern stems from the misunderstanding created by the limited nature of your inquiry, in terms of the number of sites reviewed, and the time selected for your inquiry. As you know, the Experimental Schools Program consists of 18 projects. While we agree that your assessment of the problems found at the five sites you visited is substantially correct, these sites were the first five funded, and therefore suffered most from the state-of-the-art problems noted earlier. It is our view that our capacity to deal with these problems improved over time, as exemplified in later planning documents for both the school projects and contractor evaluations.

Consequently, your conduct of the Program review in the third year of a five year program tends to emphasize the degree to which each of the five projects you reviewed deviates from the original plan, while omitting what can yet be learned from what is actually now happening in these and the other projects making up the program.

Finally, in the course of our conduct of the Experimental Schools Program, as the consequences of the conceptual, methodological, and practical weaknesses we cite above surfaced, various remedial actions were taken. Among them are:

The evaluation of each project has been narrowed in scope and matched more closely to the goals and objectives of each school's project activity.

The key staff of the evaluation contractor in Minneapolis and Edgewood have been replaced with more experienced individuals.

The evaluation contractor in Greenville was terminated, and replaced with another.

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For each of the ten rural sites, an appropriate non-participating school district has been selected for comparison study.

The Level III (cross-site study) feasibility project has been completed. This feasibility project was designed to identify those project components that warrant comparative study across several sites, and plans for such analyses are now under development.

In summary then, we accept your specific findings, but believe they are cast in an inadequate description of developing large-scale social science R&D methodology, and do not give adequate attention to the residual potential of the Experimental Schools Program to generate useful information. The National Institute of Education is a research agency, and we know you understand the need to assure the Director's continued discretion to take legitimate risks to develop important research data.

PRINCIPAL OFFICIALS OF THE
DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
RESPONSIBLE FOR ACTIVITIES DISCUSSED IN THIS REPORT

		<u>Tenure of office</u>	
		<u>From</u>	<u>To</u>
SECRETARY OF HEALTH, EDUCATION, AND WELFARE:			
David Mathews	Aug. 1975	Present	
Caspar W. Weinberger	Feb. 1973	Aug. 1971	
Frank C. Carlucci (acting)	Jan. 1973	Feb. 1971	
Elliot L. Richardson	June 1970	Jan. 1971	
ASSISTANT SECRETARY FOR EDUCATION:			
Virginia Y. Trotter	June 1974	Present	
Charles B. Saunders, Jr. (acting)	Nov. 1973	June 1971	
Sidney P. Marland, Jr.	Nov. 1972	Nov. 1971	
DIRECTOR, NATIONAL INSTITUTE OF EDUCATION:			
Harold L. Hodgkinson	July 1975	Present	
Emerson J. Elliott (acting)	Oct. 1974	July 1971	
Thomas Glennan	Oct. 1972	Oct. 1971	
COMMISSIONER OF EDUCATION (note a):			
Sidney P. Marland, Jr.	Dec. 1970	Nov. 1971	

a/ Responsibility for the Experimental Schools program was transferred from the Office of Education to the National Institute of Education in August 1972.